

REMARKS

Claims 1-14 are all the claims pending in the application. Applicants thank the Examiner for acknowledging Applicants' claim for foreign priority and receipt of the certified priority document. Applicants kindly request that the Examiner indicate acceptance of the drawings in the response to the Office Action.

Claims

Claims 2, 10, 14 were objected to because of informalities. The Examiner states that "it" after converts should be --them-- since an image has a plurality of image data. Applicants have amended the term "it" to -- the read image data-- to more clearly define the term "it".

Claim Rejections - 35 U.S.C. § 112

Claims 1, 8, 11 recite the limitation "said first or second color space" in line 3. The Examiner states that there is insufficient antecedent basis for this limitation in the claims. Applicants have amended these claims in a non-narrowing manner thought to overcome this rejection.

Claims 2, 8, 9, 11 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite because the term "for" before number of colors is vague since the Examiner states a question is raised whether it is "for a number of colors" or "four number of colors" (citing claims 2, 8, 9). The Examiner also states that this is the same for claim 11's recitation of "at least number of colors". Applicants have amended the claims to recite the number --four--.

Claim Rejections - 35 U.S.C. § 103(a)

Claims 1-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Anabuki et al. (hereinafter "Anabuki") (U.S. Patent No. 6,441,913) in view of Smith et al. (U.S. Patent No. 5,999,710). The Examiner states that concerning claims 1-14, Anabuki discloses an image processor (citing Fig. 1) for printing, comprising an expander (4) for expanding supplied compressed image data every color in a first (RGB) or second (YMCK) color space; image data supply means (5, 6) for reading the expanded image data in parallel thereby converting the expanded image data in RGB color space to expanded image data in YMCK color space and not converting the expanded image data in YMCK color space; a print engine (9) for receiving the expanded image data in the YMC color space for printing color image data in YMCK color space (citing col. 4, lines 4-32; col. 6, line 49 - col. 7, line 38; col. 8, lines 9-24; col. 14, lines 39-46; col. 16, lines 28-38;).

The Examiner states, however, that Anabuki fails to teach a memory for storing the expanded image data in an RGB or YMCK color space. Nonetheless, the Examiner alleges that it was a matter well known in the prior art that a memory is included in an expanding device to store the expanded image data. The Examiner points to Smith et al. as such teaching, and specifically a buffer for storing expanded image data (citing col. 25, lines 18-30) and a memory (129, Fig. 5) for storing the expanded image data before they are sent to the color space converter 125 (citing col. 28, lines 52-56).

As such, the Examiner concludes that it would have been obvious to one skilled in the art at the time the invention was made to include a memory for storing the expanded image data in the expanding portion 4 of the system in Anabuki as taught in Smith, since Anabuki also teaches

that the expanding portion 4 is for expanding the input image data, if it is compressed, into original image data (citing col. 4, lines 4-18). Finally, the Examiner alleges Anabuki indirectly teaches that the expanding portion 4 can expand compressed data or store non-compressed data (original image data). Applicants respectfully traverse this rejection.

Applicants note that there is no suggestion of a memory included in the Anabuki apparatus as shown in Figure 1, for storing the expanded data after expansion from expanding portion 4. The Examiner states that Anabuki indirectly teaches that the expanding portion 4 can expand compressed data or store non-compressed data (original image data). Yet, this assertion does not provide any insight as to why a memory would be included such as that recited by claim 1. Nonetheless, the Examiner also states that it is a matter well known in the art that a memory is included in an expanding device, citing Smith et al.

Assuming arguendo based on this assertion by the Examiner, Applicants submit that the buffers used in the Smith et al. apparatus are used for an entirely different purpose than the memory in the present invention, and that Smith et al. actually teaches away from the present invention. For example, the Abstract of Smith et al. teach that the Smith et al. apparatus is designed to “minimize” memory usage. Further, the memory/buffer use of the Smith et al. apparatus is required due to separate processing of lossy and lossless data as shown in Figure 1; not for timing of providing the image data to the print engine as in the present invention.

Applicants submit that in the present invention, the expander 22 expands the compressed image data regardless of their format. Then, the format of the image data is checked. The image data is converted to a different format in accordance with the checked format. In other words, the

format of the image data is recognized *after* an expanding process. In contrast, Anabuki discloses that the format of image data is recognized *before* expanding process. Further, in Anabuki, the image data contains "header" indicating color space, gradient, resolution or such and "compressed select data" which is compressed image data. The header is checked and separated from the compressed select data before expanding the compressed image data. Then, the separated header is forwarded to the image structure converting portion 5 or the image resolution converting portion 6. Therefore, Anabuki never discloses the image data supply means of claim 1 of the present application.

Additionally, the reading buffer 27 of the present invention can recognize the format (color space) of image data *after* the expanding process. Moreover, the reading buffer 27, in which the color space of the image data is recognized, performs conversion of resolution of image data by being controlled in a timing of reading. Therefore, the reading buffer 27 may be used as means for a) reading out the image data, b) converting the resolution, and c) recognizing the format (color space) of the image data. In contrast, Anabuki does not disclose the reading buffer 27 of the present invention. Accordingly, the combination of Anabuki and Smith et al. do not disclose or suggest the features recited in the claims.

claim 1

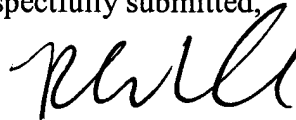
In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Amendment under 37 C.F.R. § 1.111
U.S. Application No. 09/541,902

Atty. Docket Q58624

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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